

RIVER STAGES AND FLOODS FOR JULY 1949

Several flash floods occurred during July in the Ohio Basin. Flash floods were also reported in northern Wisconsin, eastern Missouri, and in northeastern South Carolina. These floods were not as destructive as those during June but were more numerous. The most damaging one occurred in the headwaters of the Elk River in West Virginia. One life was lost in the Delaware River flood at Valley Falls, Kans.

St. Lawrence drainage.—A damaging flash flood occurred in the extreme northern portion of Wisconsin from Melton to Ashland on the 5th due to excessive rain averaging almost 10 inches in a 24-hour period and 7.77 inches in 4 hours. Part of the property damage resulted from high water in the White River and part from excessive rain outside the flood plain. These streams, which flow into Lake Superior, are no more than 15 miles long and crest only a few hours after the rain has fallen in the upper reaches.

Considerable damage resulted from this flood but it was relatively small compared to the Labor Day flood of 1941 which covered the entire upper Chippewa Valley.

Atlantic Slope drainage.—The drought in the New England States continued unabated throughout the month. On Cape Elizabeth, irrigation of gardens and farms was prohibited because of the low supply of water needed for other purposes, such as fire prevention. Temperatures reached near record maximum. Precipitation averaged about one-half of normal, and was confined mostly to thundershowers. This weather resulted in stream flow being only slightly above the lowest of record. At Hartford, Conn., the mean river stage for July was 2.1 feet, the lowest July stage since 1911.

The Monocacy River exceeded bankfull stage twice during the month. During the first rise it crested at its highest stage (21 feet) since April 1937, at the Jug Bridge gage near Frederick, Md. It rose over 15 feet during the night of the 12th–13th (12 hours). The moderate overflow was due to heavy showers averaging nearly 4 inches over the basin during the 24-hour period ending at 7 a. m. on the 13th. Only light flooding occurred on the 18th and 19th during the second rise and was due to scattered heavy showers. The Potomac did not reach flood stage at any point except near Washington, D. C., at the Leiter gage on the 19th. The major effect of the flood in the Monocacy during the first rise was that resulting to pasture land and cornfields. Some wheat in shocks was lost and most of the damage was sustained by a few farms. Low places in the highways were covered and one State road bridge was damaged. Considerable stock was lost to a gold fishery that was partially inundated.

Heavy rains in the headwaters of the Neuse River on the 15th produced light flooding at Neuse and Smithfield, N. C. The Roanoke River rose several times to above flood stage at Altavista, Va., due to frequent heavy showers in the headwaters during the first half of July. Little or no flooding occurred farther downstream until the heavy rains of the 16th and 17th.

A flash flood occurred on the Pee Dee River at Cheraw, S. C., on the 16th and 17th due to scattered heavy showers and heavy discharge from the Blewett reservoir. No damage resulted.

Light to moderate flooding occurred in the upper portions of the Saluda, Broad, and Catawba Rivers due to heavy local showers between the 14th and 17th in and near the mountains. Cleveland, S. C., reported 5.55 inches of rain during the 24-hour period ending the morning of the 12th. Several stations reported between 2 and 3 inches.

There were two rises in the Savannah drainage during July, one of which was due to excessive rains in the Caesar's Head area of North Carolina and the other by a period of rainy weather from the 11th to the 20th. During the latter period the rainfall averaged 3.65 inches and resulted in light flooding at Butler Creek, Ga. A very rapid rise (15 to 20 feet) occurred in the upper reach of the Oconee River at White Sulphur Springs, Ga., where the river is normally only about 8 inches deep. The resulting swift current washed out a 40-foot bridge, marooned a family and damaged crops in a small area.

East Gulf of Mexico drainage.—Flooding occurred on the Apalachicola River at Blountstown, Fla., during the latter half of the month due to moderate to locally heavy thundershowers from the 12th to the 19th. The main loss resulting from this overflow was that due to loss in wages through the suspension of business.

Light overflows occurred along the lower Pearl River on two different occasions during the second half of July as a result of heavy showers during the 10-day period beginning about the middle of the month.

Upper Mississippi Basin.—Minor flooding developed about the 28th in the Whitewater River area in Minnesota and in the Trempealeau River in Wisconsin following heavy showers (3.5 to 4 inches) from the 26th to the 28th. Only slight agricultural losses resulted from the high water.

A heavy local shower in the Pacific, Mo., area (Meramec Basin) on the 12th resulted in a short flash flood at that point. No damage occurred.

Missouri Basin.—Moderate damages resulted from the moderate overflow along the Delaware and lower Marais des Cygnes Rivers. The flooding was due to heavy showers that averaged over 4 inches in the Delaware Basin, about 2 inches in the upper Marais des Cygnes and 4.33 inches in the lower Marais des Cygnes below Ottawa, Kans., during the 24-hour period ending at 7 a. m. on the 7th. One life was lost in the Delaware River at Valley Falls, Kans.

Light flooding occurred on several other smaller tributaries of the Missouri due to locally heavy showers.

Some minor overflows occurred in the beginning of the month along the lower Missouri at and below Lexington, Mo., except between Jefferson City, and Hermann, Mo. This flooding was due to heavy rains on June 28, in the Missouri Basin from Omaha, Nebr., to St. Joseph, Mo.

Ohio Basin.—A flash flood occurred at Meadville, Pa., due to a torrential rain of 3 inches in an hour on the 19th. The damages were relatively light.

Another flash flood occurred in the headwaters of the Elk River at and above Sutton, W. Va., on the 13th due to extremely heavy rain. One substation measured 5.75 inches during the 24-hour period but some unofficial measurements indicate that rainfall was near 12 inches in some localities. Moderate damages resulted from the flood and were due mostly to the swiftness of the water flowing down the mountain sides, undermining and carrying away structures rather than to inundation.

On the 21st, a flash flood occurred in Decatur County and in the eastern portion of Franklin County in Indiana due to heavy rains averaging about 4 inches in a period of 6 hours. Bridges and roads were washed out in the area, 3 to 4 hundred acres of corn were flooded and a few sheep were drowned.

Some flooding occurred in the upper French Broad on two occasions near Blantyre, N. C., covering approximately the same area as in the previous month. The crest of 18.65 feet reached on the 13th was the highest

reading since 1943. Damage in the upper basin, however, was comparatively light as very little land had been replanted since the previous June flood.

Much above normal rainfall occurred over the Tennessee Valley during the period beginning about the middle of June and ending July 20, 1949. Rainfall during this period averaged about 11 inches over the Tennessee River drainage area above Chattanooga, Tenn., and about 9 inches below. The only point to exceed flood stage was Whitesburg, Ala.

Flash floods occurred on Turkey and Sinking Fork Creeks due to intense heavy local thundershowers on the 16th in the vicinity of Witt, Tenn. Approximately 4.5 inches of rain fell in less than 2 hours near the center of the storm. The flood on Turkey Creek in Morristown was about 10 inches lower than in 1933.

Slight overflows occurred on First Creek in Knoxville, on the 12th, 13th, 17th, 18th, and 19th. Damage was negligible.

White Basin.—The Black River at Black Rock, Ark., exceeded bankfull stage from the 8th to the 12th, cresting 6.4 feet above flood stage on the 9th. Considerable damage occurred to crops in lowlands adjacent to the river.

Arkansas Basin.—The Neosho River rose rapidly at Oswego, Kans., from a stage of 4.6 feet on the morning of the 7th to slightly above flood stage (17.2 feet) on the 8th. This rapid rise was due to heavy showers between Chanute and Oswego, Kans., on the 7th.

Atchafalaya.—The Atchafalaya River exceeded flood stage at Morgan City, La., for about 50 minutes on the 3d due to tide and wind effects.

West Gulf of Mexico drainage.—Scattered heavy rains occurred over the upper Sabine Basin on the 24th causing light flooding at Mineola, Tex. No damage was reported.

The Atascosa, a tributary of the Nueces, exceeded flood stage for a few hours on the 25th due to heavy rains, averaging 8.96 inches in less than 4 hours. The rains began about 4 a. m. on the 25th and by 7 a. m. bankfull stage had been reached. Considerable damage occurred to county and state roads and bridges.

Heavy rains, ranging from 2 to 6 inches, north and northwest of Del Rio, Tex., caused the Rio Grande to exceed flood stage by more than 6 feet at Del Rio on the 26th. No damage resulted as the flooding was confined to low places.

FLOOD STAGE REPORT FOR JULY 1949

[All dates in July unless otherwise specified]

River and station	Flood stage	Above flood stages— dates		Crest ¹	
		From—	To—	Stage	Date
ATLANTIC SLOPE DRAINAGE					
	<i>Feet</i>			<i>Feet</i>	
Monocacy: Frederick (near), Md.	15	{ 13	14	21.0	13
		19	10	16.1	19
Potomac: Washington (near), D. C.	10	19	19	10.2	19
Roanoke:					
		{ June 30	2	21.2	June 30
Altavista, Va.	10	12	12	15.9	12
		15	19	12.1	15
				23.6	17
Randolph, Va.	21	{ 1	1	21.4	1
		17	19	26.7	18
Weldon, N. C.	31	{ 14	14	31.2	14
		19	21	36.3	20
Scotland Neck, N. C.	25	20	22	30.0	21

FLOOD STAGE REPORT FOR JULY 1949—Continued

River and station	Flood stage	Above flood stages— dates		Crest ¹	
		From—	To—	Stage	Date
ATLANTIC SLOPE DRAINAGE—continued					
Roanoke—continued	<i>Feet</i>			<i>Feet</i>	
Williamston, N. C.	10	{ 5 16	9 30	10.5 11.3	7 25
Neuse:					
Neuse, N. C.	14	{ 16 30	16 1	16.6 15.1	16 June 30
Smithfield, N. C.	13	{ 17 18	18	14.5	17
Cape Fear: Lock No. 2, Elizabeth- town, N. C.	20	17	19	22.5	18
Pee Dee:					
Cheraw, S. C.	30	16	17	33.2	17
Pee Dee, S. C.	19	19	23	19.7	22
Saluda: Pelzer, S. C.	6	13	24	11.0	14
Broad: Blairs, S. C.	14	17	17	14.0	17
Catawba: Catawba, N. C.	8	20	20	8.4	20
Savannah: Butler Creek, Ga.	21	21	21	21.1	21
EAST GULF OF MEXICO DRAINAGE					
Apalachicola: Blountstown, Fla.	15	18	29	19.6	22
Pearl:					
Bogalusa, La.	15	17	21	17.8	19
Pearl River, La.	12	28	31	13.2	30
MISSISSIPPI SYSTEM					
<i>Upper Mississippi Basin</i>					
Whitewater: Beaver, Minn.	7	28	28	7.0	28
Meramec: Pacific, Mo.	10	12	12	10.2	12
		9	14	12.2	10
Mississippi: Louisiana, Mo.	12	{ 22 30	24 31	12.3 12.1	23 31
<i>Missouri Basin</i>					
Delaware: Valley Falls, Kans.	22	7	8	24.8	7
Wakarusa: Lawrence, Kans.		7	7	28.4	7
Stranger Creek: Tonganoxie, Kans.	23	{ 7 14	9 14	25.4 23.3	7 14
Grand:					
Chillicothe, Mo.	18	12	13	20.4	13
Sumner, Mo.	25	13	13	27.0	13
Brunswick, Mo.	12	1	2	14.0	1
Chariton: Novinger, Mo.	20	20	23	22.8	21
Blackwater: Blue Lick, Mo.	25	9	10	26.7	9
Pottawatomie Creek: Garnett, Kans.	26	7	8	28.1	7-8
Marais des Cygnes:					
Ottawa, Kans.	24	7	8	25.8	7
Oswatimie, Kans.	28	7	10	34.1	9
LaCygne, Kans.	25	8	12	29.6	10
Trading Post, Kans.	24	9	13	26.6	12
Osage: Lakeside, Mo.	60	{ 14 17	15 18	60.0 60.0	15 17, 18
Missouri:					
Lexington, Mo.	22	1	1	22.7	1
Waverly, Mo.	18	1	2	20.4	1
Boonville, Mo.	21	1	1	21.3	1
St. Charles, Mo.	25	2	3	25.3	3
<i>Ohio Basin</i>					
Elk: Sutton, W. Va.	25	13	13	26.1	13
		12	13	5.7	12
First Creek: Knoxville, Tenn.	5	{ 12 17	{ 13 19	{ 5.2 5.8	{ 13 18
Tennessee: Whitesburg, Ala.	560	18	20	562.2	19
<i>White Basin</i>					
Black: Black Rock, Ark.	14	8	12	20.5	9
<i>Arkansas Basin</i>					
Neosho: Oswego, Kans.	17	8	9	17.2	8
<i>Atchafalaya Basin</i>					
Atchafalaya: Morgan City, La.	6	3	3	6.0	3
WEST GULF OF MEXICO DRAINAGE					
Sabine: Mineola, Tex.	14	30	Aug. 1	15.3	31
Rio Grande:					
Lobatos Bridge, Colo.	4	June 13	4	7.7	June 21
Embudo, N. Mex.	8	June 18	1	12.2	June 22
GULF OF CALIFORNIA DRAINAGE					
Animas: Durango, Colo.	4	May 23		{ 5.5 8.3	{ May 28 June 19

¹ Provisional.